UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,729	05/17/2006	Takahiro Higashimura	2006_0672A	8878

52349 7590 11/02/2009

WENDEROTH, LIND & PONACK L.L.P.
1030 15th Street, N.W.
Suite 400 East
Washington, DC 20005-1503

EXAMINER	
ZHANG, FAN	

ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
11/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,729	HIGASHIMURA ET AL.	
	Examiner	Art Unit	
	FAN ZHANG	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/17/2006 and 03/12/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 12 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claims 12 and 16, "a program" is a functional descriptive material and a functional descriptive material per se is excluded from any of the four categories of a process, machine, manufacture, or composition of matter. Therefore, the claim subject matter, "a program" is not statutory regardless its claimed functional description since it cannot be realizable without being encoded within a computer readable medium. See MPEP 2106.01 (I).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US Pub: 2004/0066530) and in further view of Nishio (US Patent: 6,292,202).

Regarding claim 1, Wu et al teach: A printing apparatus which receives a print instruction, then obtains print data including plural pieces of sub-data, and prints the print data [abstract], said printing apparatus comprising: a print data obtainment unit operable to obtain the sub-data [p0047]; a determination unit operable to determine whether or not there is necessity of further obtaining of the sub-data, by said data obtainment unit, in order to complete printing of the print data [fig. 11: steps 1104, 1108]; and a notification unit operable to notify a result of the determination, to a print instruction apparatus which issues the print instruction, when the determination is made that there is no necessity [fig. 11: step 1108/No, 1109]. Wu et al do not emphasize not to obtain already obtained/redundant sub-data. In the same field of endeavor, Nishio teaches: a determination unit operable to determine whether or not there is necessity of further obtaining of the obtained sub-data, by said data obtainment unit, in order to complete printing of the print data; and a notification unit operable to notify a result of the determination, to a print instruction apparatus which issues the print instruction, when the determination is made that there is no necessity [col 16: lines 6-21]. Preventing transferring of redundant data has been well practiced in the art as prescribed by Nishio. Therefore, it would have been obvious for an ordinary skilled in the art to combine the teaching of Wu et al and Nishio to prevent re-transfer obtained data for improving image output control speed.

Regarding claim 2, the rationale applied to the rejection of claim 1 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 1, wherein the print data includes one parent sub-data and one or more child sub-data which are referred to by the parent sub-data, said print data obtainment unit is operable to obtain the parent sub-data prior to child sub-data, and said determination unit is operable to determine the necessity regarding the child sub-data referred to by the obtained parent sub-data [p0046-p0051].

Regarding claim 3, the rationale applied to the rejection of claim 2 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 2, wherein said determination unit is operable to determine that there is no necessity, when the child sub-data obtained by said print data obtainment unit is referred to by only one part in the parent sub-data [fig. 6: step 609/No, p0054-p0058 (As illustrated in fig. 7, each management number refers to an unique element and no repeated acquisition is necessary or indicated if an element has been referenced by HTML document data page.)].

Regarding claim 4, the rationale applied to the rejection of claim 2 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 2, wherein said determination unit is operable to determine that there is no necessity, when the child sub-data obtained by said print data obtainment unit is not further

referred to by the parent sub-data [p0051 (when all the elements referred to by HTML/parent sub-data are found, printing is performed and no necessity of obtaining any data.)].

Regarding claim 5, the rationale applied to the rejection of claim 2 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 2, wherein the child sub-data referred to by the parent sub-data includes grand-child sub-data referred to by the child sub-data [p0047, p0048 (Parent sub-data: HTML description, child sub-data: image elements 516, 518, and grand-child sub-data: image data corresponding to content ID in the second part 520.)].

Regarding claim 6, the rationale applied to the rejection of claim 2 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 2, wherein said determination unit is operable to determine the necessity only regarding the parent sub-data [figs. 4-6 (Parent sub-data in terms of HTML page document is analyzed as illustrated in figs. 4-6.)]. Therefore, given Nishio's teaching on detecting duplicated data and eliminating re-transferring of repeated data, it would have been obvious for an ordinary skilled in the art to modify Wu et al's teaching to apply to HTML page document the technique of preventing repeated data transferring for saving memory space and improving printing speed.

5. Claims 7-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al (US Pub: 2004/0066530) and Nishio (US Patent: 6,292,202); and in further view of Mackawa et al (US Pub: 2004/0201866).

Regarding claims 7 and 8, the rationale applied to the rejection of claim 1 has been incorporated herein. Nishio does not specify a request to be received before notifying not to transfer duplicated data. Wu et al teach a pull-printing system for capable of doing so in [p0036] without detailed elaboration. In the same field of endeavor, Mackawa et al teach: The printing apparatus according to claim 1, wherein said notification unit is operable to notify a result of the determination, only when a request for the notification is received from the print instruction apparatus, wherein said notification unit is operable to determine whether or not the print instruction includes the request for the notification, and to notify a result of the determination regarding the necessity, only when the request is included [p0100, fig. 1]. Sending information/notification from a printer only under request/instruction of a PC has been well practiced in the art as prescribed by Mackawa et al. Therefore, it would have been obvious for an ordinary skilled in the art to modify Nishio's teaching to allow a request to be received first before determining the necessity of sending repeated data for providing user options for making different choices.

Regarding claims 9 and 10, the rationale applied to the rejection of claim 2 has been incorporated herein. Wu et al further teach: The printing apparatus according to claim 2, wherein the parent sub-data is described in a markup language, and the child

sub-data is data except the data described in the markup language, wherein the parent sub-data is described in a hyper text markup language (HTML), and the child sub-data is one of image data and style information data [p0046-p0049].

Regarding claim 11, the method steps herein have been performed or executed by the corresponding apparatuses from claim 1. Therefore, claim 11 has been analyzed and rejected with regard to claim 1.

Regarding claim 12, the rationale applied to the rejection of claim 11 has been incorporated herein. Wu et al further teach: A program used in a printing apparatus, the printing apparatus receiving a print instruction, then obtaining print data including plural pieces of sub-data, and printing the print data, said program causing a computer to execute the steps included in the printing method according to claim 11 [p0032].

Regarding claim 13, Wu et al teach: A print instruction apparatus [fig. 2: unit 23] which instructs a printing apparatus [fig. 2: unit 22] to print print data including plural pieces of sub-data [Abstract], said print instruction apparatus comprising: a print buffer in which at least one of the sub-data is held [p0038, p0042]; a print data output unit operable to output the sub-data held in said print buffer, to the printing apparatus [p0043]; a necessity receiving unit operable to receive, from the printing apparatus, a notification that there is no necessity of further obtaining of the sub-data, by the printing apparatus, in order to complete printing of the print data [fig. 11: steps 1108, 1109]; and

a deletion unit operable to delete the sub-data corresponding to the notification, from said print buffer, when the notification is received [p0097, fig. 11: step 1111, fig. 13]. Wu et al do not emphasize on not obtaining already obtained/redundant sub-data. In the same field of endeavor, Nishio teaches no necessity of further obtaining of the outputted sub-data in [col 16: lines 6-21]. Preventing transferring of redundant data has been well practiced in the art as prescribed by Nishio. Therefore, it would have been obvious for an ordinary skilled in the art to modify Wu et al's teaching to prevent re-transfer obtained data for improving image output control speed.

Regarding claim 14, the rationale applied to the rejection of claim 13 has been incorporated herein. Wu et al further teach: The print instruction apparatus according to claim 13, wherein the print data includes one parent sub-data and one or more child sub-data which are referred to by the parent sub-data, said print buffer in which only the parent sub-data is held among the sub-data included in the print data, and said deletion unit is operable to delete the parent data from said print buffer [p0035, p0037, p0039-p0041, figs. 3 and 4 (Stored HTML document data/parent sub-data only include referencing address or ID of content data/child sub-data which are stored in different place. Deletion of HTML document data does not delete the referenced data stored outside the printer.)].

Regarding claim 15, the method steps herein have been performed or executed

by the corresponding apparatuses from claim 13. Therefore, claim 15 has been analyzed and rejected with regard to claim 13.

Regarding claim 16, the rationale applied to the rejection of claim 15 has been incorporated herein. Wu et al further teach: A program used in a print instruction apparatus, the print instruction apparatus instructing a printing apparatus to print print data including plural pieces of sub-data, said program causing a computer to execute the steps included in the memory release control method according to claim 15 [p0032].

Claim 17 has been analyzed and rejected with regard to claims 1 and 13.

Regarding claim 18, Wu et al teach: A printing method used in a system which includes a printing apparatus [fig. 2: unit 22] and a print instructing apparatus [fig. 2: unit 23], the print instruction apparatus instructing the printing apparatus to print print data including plural pieces of sub-data [Abstract], said printing method comprising: a transferring step of transferring the sub-data held in a print buffer of the print instruction apparatus, to the printing apparatus [p0035, p0036]; a determining step of determining whether or not there is necessity of further transferring the transferred sub-data from the print instruction apparatus to the printing apparatus, in order to complete printing of the print data in the printing apparatus [fig. 11: steps 1104, 1108]; a notifying step of notifying a result of the determination from the printing apparatus to the print instruction apparatus, when the determination is made that there is no necessity [fig. 11: steps

1108/No, 1109]; and a deleting step of deleting the sub-data held in the print buffer of the print instruction apparatus, when the notification is performed [p0097, fig. 11: step 1111, fig. 13]. Wu et al do not emphasize on not obtaining obtained/redundant sub-data. In the same field of endeavor, Nishio teaches no necessity of further transferring the transferred sub-data in [col 16: lines 6-21]. Preventing transferring of redundant data has been well practiced in the art as prescribed by Nishio. Therefore, it would have been obvious for an ordinary skilled in the art to modify Wu et al's teaching to prevent re-transfer obtained data for improving image output control speed.

Contact

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fan Zhang whose telephone number is (571) 270-3751. The examiner can normally be reached on Mon-Fri from 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fan Zhang/

Patent Examiner

/Mark K Zimmerman/

Supervisory Patent Examiner, Art Unit 2625